

**1. PRODUCT AND COMPANY IDENTIFICATION:**

**PRODUCT CODE** N0276  
**PRODUCT NAME** NATURAL TRANS-2-HEPTENAL  
**SUPPLIER** Shanghai M & U International Trade Co., Ltd.  
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**FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)**

**2. HAZARD IDENTIFICATION:**

**Classification of the substance or mixture**



GHS02 GHS06

Acute Tox. 4	H302 Oral
Acute Tox. 4	H334 Inhalation
Acute Tox. 3	H311 Dermal
Skin Irrit. 1	H317 Causes skin irritation
Flam. Liq. 3	H226 Flammable liquids.

**Label elements**

Harmful in contact with skin or if inhaled.

**GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible. The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS07

**Signal word**

Warning

**Hazard statements**

H226 Flammable liquid and vapor.  
H302+H332 Harmful if swallowed or if inhaled.  
H311 Toxic in contact with skin.  
H317 May cause an allergic skin reaction.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion proof electrical/ventilating/lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke while using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the work place.  
P280 Wear protective gloves/clothing/face and eye protection.  
P301+P312 IF SWALLOWED: Call a poison center or doctor if you feel unwell.  
P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a poison center or a doctor if you feel unwell.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P330 Rinse mouth.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention  
P332+P337+P313 If skin or eye irritation occurs get medical advice/attention.  
P362 Take off contaminated clothing and wash before reuse.  
P370+P378 In case of fire: use dry sand, dry chemical or alcohol resistant foam for extinction.  
P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

**NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 2

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 2

Reactivity = 0

**Other hazards****Results of PBT and vPvB assessment****PBT:**

Not applicable.

**vPvB:**

Not applicable.

**3. COMPOSITION AND INFORMATION ON INGREDIENTS:****Chemical characterization: Substances**

CAS No.: 18829-55-5

Description: (E)-Hept-2-enal

**Identification number(s)**

Not Applicable

**Hazardous Components**

Component	Classification	Concentration
(E)-Hept-2-enal	Flam. Liq. 3; Acute Tox. 4; Acute Tox. 3; Skin Sens. 1; H226, H302 + H332, H311, H317	90 - 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST-AID GUIDE:****Description of first aid measures****After inhalation:**

If breathed in, move person into fresh air. In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly. Immediately bring victim to hospital.

**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. If symptoms persist consult doctor.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**5. FIRE-FIGHTING GUIDE:**

**Extinguishing media**

**Suitable extinguishing agents:**

CO2 or extinguishing powder. Fight larger fires with alcohol resistant foam.

**Special hazards arising from the substance or mixture**

Carbon oxides.

**Advice for firefighters**

**Protective equipment:**

No special measures required.

**Additional information**

Cool endangered receptacles with water spray.

Collect contaminated firefighting water separately. It must not enter the sewage system.

**6. ACCIDENTAL RELEASE GUIDE:**

**Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection, avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations.

**Environmental precautions:**

Do not let product enter drains.

**Methods and material for containment and cleaning up:**

Contain spillage and then collect with an electrically protected vacuum cleaner or by wet brushing. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**7. HANDLING AND STORAGE:**

**Handling:**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Keep away from sources of ignition – no smoking. Take measures to prevent build of electrostatic charge.

**Information about protection against explosions and fires:**

No special measures required.

**Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:**

Keep container tightly closed in a dry and well-ventilated place.

**Information about storage in one common storage facility:**

Not required.

**Further information about storage conditions:**

Keep receptacle tightly sealed.

**Specific end use(s)**

No further relevant information available.

**8. EXPOSURE AND PERSONAL PROTECTION:**

**Additional information about design of technical systems:**

No further data; see item 7.

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

Not required.

**Additional information:**

The lists that were valid during the creation were used as a basis.

## Exposure controls

### Personal protective equipment:

#### General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

### Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

### Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

### Penetration time of glove material

The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.

### Eye protection:



Tightly sealed goggles.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Information on basic physical and chemical properties

<b>General Information</b>	
<b>Appearance:</b>	
<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow
<b>Odor:</b>	Not determined.
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.

<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	90-91 °C (194-196°F)
<b>Flash point:</b>	51 °C (124 °F)
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
<b>Auto igniting:</b>	Not determined.
<b>Danger of explosion:</b>	Not determined.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not determined.
<b>Density at 20 °C (68 °F):</b>	0.857 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Organic solvents:</b>	0.0 %
<b>Other information</b>	No further relevant information available.

## 10. STABILITY AND REACTIVITY:

### Reactivity

#### Chemical stability

#### Thermal decomposition/conditions to be avoided:

No decomposition if used according to specifications.

#### Possibility of hazardous reactions

No dangerous reactions known.

#### Conditions to avoid

Heat, flames and sparks.

#### Incompatible materials:

Strong oxidizing agents.

#### Hazardous decomposition products:

No dangerous decomposition products known.

## 11. TOXICOLOGICAL INFORMATION:

**Information on toxicological effects**

**Acute toxicity:**

**Primary irritant effect:**

**On the skin:**

Irritant to skin and mucous membranes.

**On the eye:**

Irritating effect.

**Sensitization:**

No sensitizing effects known.

**Additional toxicological information:**

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

Substance is not listed.

**NTP (National Toxicology Program)**

Substance is not listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

**12. ECOLOGICAL INFORMATION:**

**Toxicity**

**Aquatic toxicity:**

No further relevant information available.

**Persistence and degradability**

No further relevant information available.

**Behavior in environmental systems:**

**Bioaccumulative potential**

No further relevant information available.

**Mobility in soil**

No further relevant information available.

**Additional ecological information:**

**General notes:**

Generally not hazardous for water.

**Results of PBT and vPvB assessment**

**PBT:**

Not applicable.

**vPvB:**

Not applicable.

**Other adverse effects**

No further relevant information available.

**13. DISPOSAL RECOMMENDATIONS:****Waste treatment methods****Recommendation:**

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Uncleaned packaging:****Recommendation:**

Disposal must be made according to official regulations.

**14. TRANSPORTATION INFORMATION:**

<b>UN-Number DOT, ADR, IMDG, IATA</b>	UN1988
<b>UN proper shipping name DOT ADR IMDG, IATA</b>	Aldehydes, flammable, toxic, n.o.s. ((E)-Hept-2-enal)  ALDEHYDES, FLAMMABLE, TOXIC, N.O.S. ((E)-Hept-2-enal) EMS-No: F-E, S-D
<b>Transport hazard class(es) DOT, ADR, IMDG, IATA Class</b>	3 (6.1)
<b>Packing group DOT, ADR, IMDG, IATA</b>	III
<b>Environmental hazards: Marine pollutant:</b>	No
<b>Special precautions for user</b>	
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information: DOT Quantity limitations</b>	Not applicable.
<b>ADR Excepted quantities (EQ)</b>	Not applicable.
<b>IMDG Limited quantities (LQ)</b>	Not applicable.

<b>Exempted quantities (EQ)</b>	
<b>UN "Model Regulation":</b>	Not applicable.

## 15. REGULATORY INFORMATION:

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Sara**

**Section 355 (extremely hazardous substances):**

Substance is not listed.

**Section 313 (Specific toxic chemical listings):**

Substance is not listed.

**TSCA (Toxic Substances Control Act):**

Substance is not listed.

**Proposition 65**

**Chemicals known to cause cancer:**

Substance is not listed.

WARNING! This product contains a chemical known to the State of California to cause cancer:  
Acetaldehyde CAS-no. 75-07-0

**Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

**Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

**Chemicals known to cause developmental toxicity:**

Substance is not listed.

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

Substance is not listed.

**TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

**GHS label elements**

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**Hazard pictograms**

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GHS02    GHS06

**Signal word**

Warning

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Acute Tox. 3	H311 Dermal
Skin Irrit. 1	H317 Causes skin irritation
Flam. Liq. 3	H226 Flammable liquids.

**Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**16. OTHER INFORMATION:**

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

**Prepared By:** M&U International LLC

**REVISED:** 07/17/2017